

REMARKS

Claims 1-29 are pending in this application. Claims 1, 3-5, 7, 9-12, 15, 18-22, 24, and 27 are amended. Support for the amendments can be found in at least paragraphs 23, 24, 26, 29, and 34-35 and FIGs. 1-13 of the as-filed specification. Accordingly, no new matter has been added herein. Applicants respectfully request that the amended claims be examined and promptly allowed in view of the amended claim language and the remarks herein.

Claims 1-9, 12-19, and 21-27 are rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 6,325,807 to Que ("Que") in view of U.S. Patent No. 6,152,944 to Holman ("Holman"). Applicants respectfully traverse.

Independent claims 1 and 27 each require a cannula that is defined from a continuum of material, while independent claim 15 requires a cannula that is defined from a continuum of metal. As set forth in the specification, a continuum means a single continuous piece of material. As filed specification, p. 3, paragraph 9.

In the final rejection dated September 25, 2006, the Examiner did not discuss these limitations, nor did the Examiner reference where these limitations allegedly were disclosed in the prior art of record. Accordingly, Applicants respectfully request that the current rejections be withdrawn in view of the remarks herein because the prior art of record, either alone or in combination, does not disclose or suggest the claimed invention.

Que is directed to a sheath with a handle, a relatively rigid portion, and a flexible portion. Que discloses a sheath with longitudinal slits or axial grooves formed in the sheath wall, but does not disclose or suggest that the slits grooves may be spiral. See col. 8, ll. 53-66. Que is silent on the structure on Que's sheath. Accordingly, Que does not disclose or suggest a cannula formed from a continuum of material (as in independent claims 1 and 27) or metal (as in independent claim 15) with a spiral cut along the longitudinal axis of the cannula.

Holman discloses a catheter with an expandable balloon at a distal end. A balloon protector is provided to surround the balloon during installation and positioning of the catheter within a patient, which aids in maintaining the distal end of the catheter

and the balloon at a low profile. Holman, col. 8, ll. 14-17. Holman discloses that the balloon protector may be a cylindrical member with a helical slot to allow for expansion and contraction of the balloon protector. Holman, col. 10, ll. 13-52. While Holman discloses a member with a helical slot along its axis, this member is physically separate from the catheter, not one that is formed with a continuum of material, or metal, from the remainder of the catheter, let alone a cannula. Logically, the balloon protector cannot be formed from a continuum of material (as in independent claims 1 and 27) or metal (as in independent claim 15) with the remainder of the catheter, because this would eliminate, or significantly hamper, the ability to remove the disclosed balloon protector of Holman to allow Holman's balloon to expand.

Accordingly, neither Que nor Holman disclose or suggest the claimed construction of a cannula and Applicants respectfully request that the rejections of independent claims 1, 15, and 27 be withdrawn.

Dependent claims 2, 4-6, 8, 13-14, 16-17, 20-23, and 25-26, and 28-30 are allowable at least because the independent claims that they depend from are allowable. Applicants respectfully request that the rejections of these claims be withdrawn.

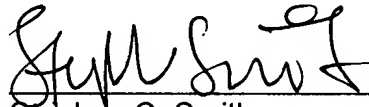
Claims 9 and 23 are rejected as obvious over the combination of Que and Holman, in further view of U.S. Patent No. 6,136,014 to Sirimanne et al. ("Sirimanne"). Sirimanne does not disclose or suggest a cannula that is formed from a continuum of material or metal, nor a cannula that includes a spiral cut, let alone a grasping portion or a removal portion defined from the missing continuum. Accordingly, the addition of Sirimanne does not render claims 1 and 15 obvious, much less dependent claims 9 and 23. Applicants respectfully request that this rejection be withdrawn.

Claims 10, 12, 20 and 28 are rejected as obvious over the combination of Que and Holman, in further view of U.S. Patent No. 4,927,426 to Dretler ("Dretler"). Dretler does not disclose or suggest a cannula that is formed from a continuum of material or metal, a spiral cut, or a grasping portion or a removal portion defined from the missing continuum. Accordingly, the addition of Dretler does not render claims 1, 15, and 27 obvious, much less dependent claims 10, 12, 20, and 28. Applicants respectfully request that this rejection be withdrawn.

Claims 11 and 29 are rejected as obvious over the combination of Que, Holman, and Dretler in further view of U.S. Patent No. 4,557,255 to Goodman ("Goodman"). Goodman does not disclose a grasping portion or a removal portion disposed on a cannula. Further, Goodman does not disclose a cannula formed by a continuum of material as in independent claim 1. Accordingly for at least these reasons, the addition of Goodman to Que, Holman, and Dretler does not render claims 1 and 27 obvious, much less dependent claims 11 and 29. Applicants respectfully request that this rejection be withdrawn.

Claims 1, 2, 4-6, 8-11, 13-17, 20-23, and 25-33 are patentable. Applicant respectfully requests the Examiner grant allowance of this application. The Examiner is invited to contact the undersigned attorney for the Applicants via telephone at (312) 222-8124 if such communication would expedite this application.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Stephen C. Smith", written over a horizontal line.

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